

KERMADEC PETREL IN PENNSYLVANIA

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THE accidental appearance of a Kermadec Petrel (*Pterodroma neglecta*) at the Lookout at Hawk Mountain Sanctuary in eastern Pennsylvania, on 3 October 1959, adds a new species to the avifauna of North America. Identification of the bird as *P. neglecta* has been made by Dr. Robert Cushman Murphy of the American Museum of Natural History in New York City.

Most appearances of accidentals among oceanic birds can be attributed to the presence of meteorological disturbances passing through the area in which the birds were seen. The usual factor involved is a hurricane. Murphy (1936:53) expresses an opinion regarding hurricanes and accidentals as follows:

From evidence connected with the "trapping" of birds within the vortex of a cyclonic storm, and with the occasional conveyance of strong-winged species of sea fowl from the eastern equatorial Atlantic to points far in the interior of North America, I am inclined to believe that an ocean bird might be carried along within the so-called "eye" of a hurricane because, when once entrapped, it would tend constantly to rebound away from the periphery of gales, and thus to retreat toward the quieter center.

Dr. Murphy cites the cyclone of August 1933, in which a South Atlantic sea bird and an eastern Atlantic sea bird were carried to New York State and Ontario, Canada, respectively. He continues,

... it seems to me altogether probable that the birds of the two species referred to were actually caught *inside* the swirl of this storm. Under such circumstances, they might be carried along without becoming panicky, without experiencing any sense of difficulty, feeding normally, and tending always to turn inward toward the calm of the slow-moving center when they had flown far enough in one direction to come into heavily wind-whipped waters. The system as a whole, by the way, was moving forward during this period at a rate not exceeding 25 kilometers per hour. Only when the vortex came into close proximity with the land, as I conceive the situation, would the birds thus held in unconscious durance begin to fight the gales, perhaps to be carried into the higher altitudes of the atmosphere and to be buffeted as helpless waifs for long distances overland before being cast out centrifugally, subsequently to fall exhausted.

He then states that he is able only through the above explanation, to comprehend "... the transportation of Black-capped Petrels from points east of the Caribbean to the Mississippi Valley, or of Madeira and South Trinidad Petrels from the central or eastern north equatorial Atlantic to Ottawa and Ithaca, respectively." In the case of *P. neglecta*, the subject of this paper, Hurricane Gracie was probably responsible for carrying the bird to Hawk Mountain Sanctuary.

An explanation of Hurricane Gracie, from its beginning to the time it reached the Pennsylvania border will be of interest in determining the pres-

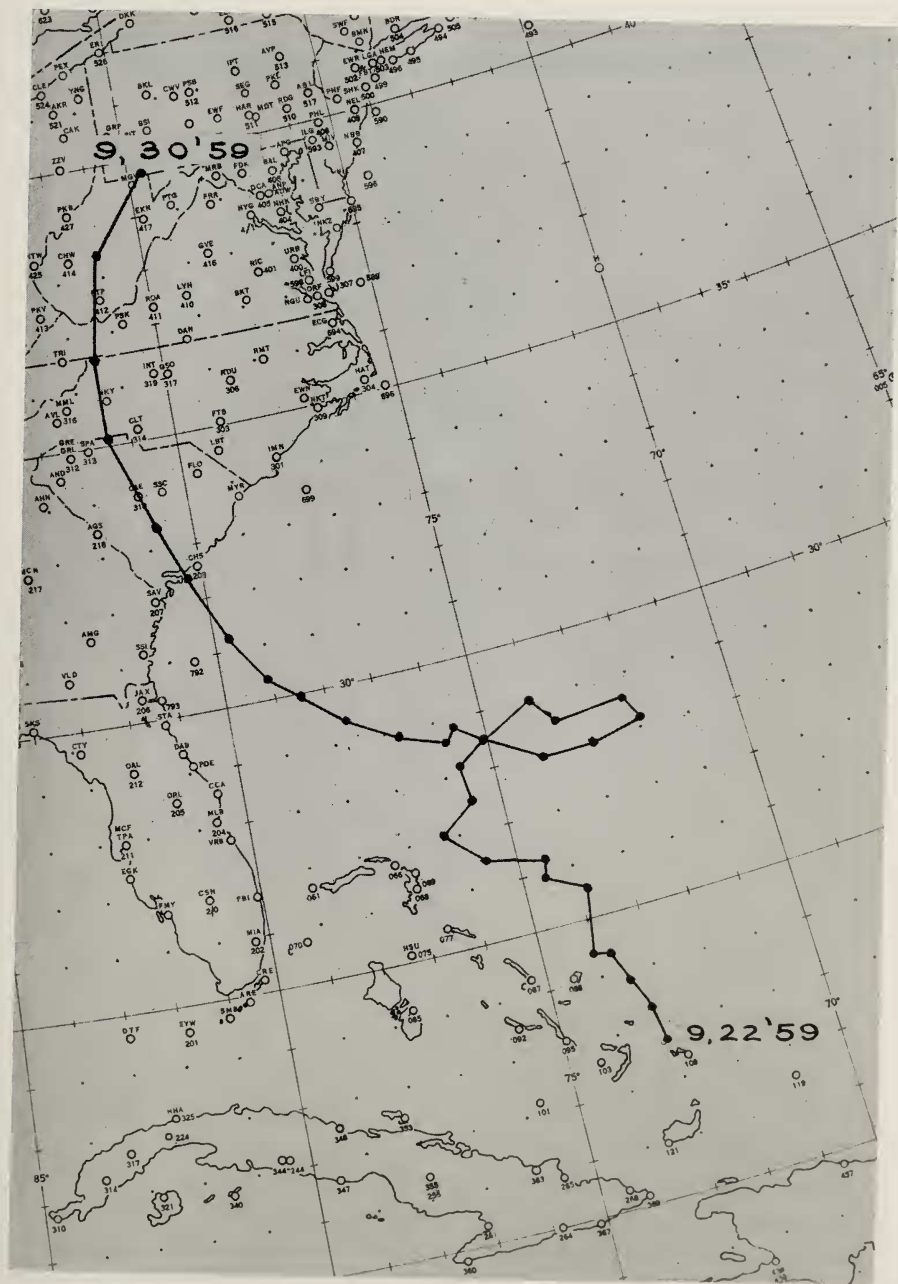


FIG. 1. Map showing the course of Hurricane Gracie from 22 September 1959 to 30 September 1959.

ence of *P. neglecta* far from its normal range. The United States Weather Bureau recorded the storm as a hurricane for the first time on 22 September 1959, in the Bahamas, and it was probably somewhere in that area that the petrel was entrapped. As the storm proceeded north (Fig. 1), it made a loop in the Atlantic Ocean and then proceeded again on its northward course. On the morning of 30 September 1959, eight days after its detection and classification by the Weather Bureau as a hurricane, Gracie entered Pennsylvania. By that evening it was west of Allentown, Pennsylvania, but at that point the velocity of the winds had greatly subsided and the Weather Bureau stopped collecting data on it.

Three days later *P. neglecta* was observed at the Lookout at Hawk Mountain Sanctuary. This is an extremely interesting record because the normal range for the species (Murphy, 1936:705) is the "Sub-tropical Zone of the South Pacific Ocean; breeding at Mas Atierra and Santa Clara Islands of the Juan Fernández group, San Ambrosio, numerous islands of southern Polynesia, and at the Kermadecs and Lord Howe Islands in the western part of the ocean; ranges northward in the eastern Pacific into the northern hemisphere." Murphy (1936:706) quoting Loomis (1918:102) has shown that "... the Kermadec Petrel migrates northward in the eastern Pacific to about latitude 15° N., where two examples were collected and others observed by Beck during October, 1906."

Pterodroma neglecta is described (Murphy, 1936) as a dichromatic petrel which occurs in two color phases: black and light brown. A number of intermediates are also found, which range from light specimens with white bellies and very light throats and heads, to very dark specimens which are almost black. White areas on the throat, wings and usually elsewhere are always present, however. The concealed basal portions of the entire plumage are white in all color phases, which produces a mottling even in the darkest phases. All the birds, regardless of color, have the shafts of their primaries, as well as a greater part of the inner web of each primary, largely and conspicuously white. *Pterodroma neglecta* may be distinguished from all other closely related forms, including *P. arminjoniana*, by these characteristics. The whitish base of the rectrices is another distinctive characteristic (Fig. 2). Murphy and Pennoyer (1952:6) give excellent illustrations of wing patterns in the genus *Pterodroma* to which the reader is referred.

The adults in the dark phase (sexes alike) vary in their general color between a grayish brown and a dark brownish black. A white mottled area appears on the throat and also to a lesser degree elsewhere. The quills of the wing and tail, including the white shafts, are as described. Birds in the dark phase have legs which are black, whereas specimens in the intermediate phases are parti-colored.



FIG. 2. A view of the ventral surface of *Pterodroma neglecta* showing the white wing patches, whitish base of the rectrices, and the petrel bill which is shorter than that of the shearwaters. Photo from a 16 mm Kodachrome motion picture.

Pterodroma neglecta was observed for a period of about five minutes (1:00 to 1:05 PM, EST) on 3 October 1959. The weather was very cloudy and the light was quite dim. A Weston exposure meter did not record more than 50 foot-candles. The bird circled the Lookout at varying heights—at times only 40 feet above the approximately 40 observers who were present and saw the bird. I was able to secure 50 feet of 16mm Kodachrome motion pictures showing both the dorsal and the ventral surfaces of the bird as it circled overhead. It was last seen flying in a northwest direction toward the upper Susquehanna River and New York State.

Because of the poor lighting conditions, only 36 feet of film are usable, but they clearly show the conspicuous white wing patches against the dark

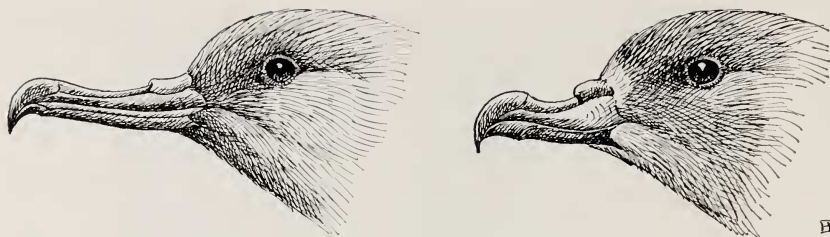


FIG. 3. Head and bill of *Puffinus griseus* (left) and *Pterodroma neglecta*. Drawn by Dr. Earl L. Poole from skins in ANSP.

plumage of the body on the ventral surface of the bird. Furthermore, the whitish base of the rectrices may also be seen (Fig. 2).

Since I am unfamiliar with oceanic birds, I sent the film to Dr. Murphy and requested his opinion regarding the identification of the bird. His reply, in part, follows:

The short strip of motion pictures of your seabird is far more revealing than I had anticipated. It is not a Sooty Shearwater (as one ornithologist suspected). That species has a white wing lining as conspicuous as the Black Duck's. Furthermore, your bird is not a *Puffinus* of any sort. Its bill (see comparison of Figs. 2, 3) and its style of flight show that it is a member of the genus *Pterodroma*.

On geographic grounds, the most likely petrel would be *Pterodroma arminjoniana* from the south Atlantic which has once been taken at Ithaca, New York (Murphy, 1936:53) after a hurricane (see also Allen, 1934:134). Careful examination of the film appears, however, to rule out that species. My final conclusion is that this petrel can be nothing else than *Pterodroma neglecta* in the dark plumage phase. There is no other species that shows the conspicuous white wing patch against a generally black plumage.

Under separate cover I am sending you a systematic paper of my own (Murphy and Pennoyer, 1952) and I call your attention to the diagrams of wing pattern on page 6. These figures and the text will supply the grounds for my conclusion. On the other hand, I suppose that my memory of the living birds influences me quite as much as the facts of description.

My photographs, along with the drawing (Fig. 3) by Dr. Earl L. Poole, which illustrate this paper, serve as another means of comparison between the genera *Puffinus* and *Pterodroma*.

Dr. Murphy has the following opinion regarding records for this bird in North America: "*Pterodroma neglecta* has probably not previously been recorded from the north Atlantic area...many members of the genus have turned up as stray birds in odd corners of the world. I believe that *neglecta* has been recorded in the same way from somewhere in Europe." The single record of *P. neglecta* in Europe is a male which was picked up dead in Tarporley (Cheshire), England, on 1 April 1908 (Witherby et al., 1952:63).

The latest edition of the AOU Checklist includes no records for this species in North America. This then is the first record for *Pterodroma neglecta* on the North American Continent.

ACKNOWLEDGMENTS

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LITERATURE CITED

ALLEN, A. A.

- 1934 A new bird for North America. *Univ. of the State of N.Y., Bull. to the Schools*, 20, no. 13:134-135.

LOOMIS, L. M.

- 1918 A review of the albatrosses, petrels, and diving petrels. *Proc. Calif. Acad. Sci.*, (4) 2, pt. 2, no. 12:1-187, pls. 1-17.

MURPHY, R. C.

- 1936 Oceanic Birds of South America. American Museum of Natural History, New York.

MURPHY, R. C., AND J. M. PENNOYER

- 1952 Larger Petrels of the Genus *Pterodroma*. *Amer. Mus. Novit.*, no. 1580:6, New York.

WITHERBY, H. F., ET AL.

- 1952 The Handbook of British Birds. Vol. IV. H. F. & G. Witherby Ltd., London.

629 GREEN STREET, ALLENTOWN, PENNSYLVANIA, 22 JUNE 1961 (ORIGINALLY
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NEW LIFE MEMBER

New life member Simon Rositzky, of St. Joseph, Missouri, is interested in ornithology primarily through field work. A graduate of the University of Missouri, Mr. Rositzky is now president of United Department Stores, the father of two teenage daughters, and actively works with Boy Scouts. He was president of the St. Joseph Audubon Society, is a member of the board of directors of the St. Joseph Museum, and is an active member of the National Audubon Society and the American Museum of Natural History.

